

# **LITHOGRAPHIC APPARATUS, DEVICE MANUFACTURING METHOD, AND COMPUTER- READABLE STORAGE MEDIUM**

## **ABSTRACT OF THE DISCLOSURE**

5           The change in a property of a lithographic apparatus (e.g. the change in  
magnification of the projection system due to lens heating effects) is predicted,  
and when the change since the last time an alignment task was performed is  
greater than a threshold, an additional alignment task is carried out. A  
realignment is triggered when the predictive correction, and hence the error in  
10 it, becomes larger than a desired maximum. This avoids unnecessary  
realignments but ensures that an alignment does occur when likely errors are  
out of permitted ranges.